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# PROFESSOR MÜTTER'S

## SYLLABUS OF LECTURES.

### PART III.

#### IV. DISEASES OF THE EAR.

*Anatomy of Ear.*—Divided into external, middle, and internal ear. The external ear consists of the auricle, and the meatus auditorius externus. The middle ear consists of the tympanum and its appendages, namely, the membrana tympani; the four ossicula auditus with their ligaments and muscles; the eustachian tube; and the mastoid cells.

The internal ear, or labyrinth as it is termed, from its complexity of organization, is divided into bony and membranous labyrinth—the bony is sub-divided into vestibule, three semicircular canals, and the cochlea—the membranous labyrinth is found within the semicircular canals and the vestibule and contains the thin serous fluid called liquor cotunnii.

#### MALFORMATIONS OF THE EAR.

##### MALFORMATIONS OF THE AURICLE.

*Cases most frequently met with.*—1. Deficiency of helix, and sometimes its division from the lobus. 2. An entire absence of the lobus—its division by a slit into an anterior and posterior portion—or its attachment wholly or partially to the integuments of the side of the head. 3. The tragus and anti-tragus are sometimes united, or inverted so as to partially close the opening of the meatus. 4. The total absence of the auricle. 5. An enormous enlargement of the auricle.

*Causes.*—1. Congenital. 2. Acquired, from wounds, bites, ulceration, sloughing—an increase in size is often the result of manipulation, or of the dress stretching the part.

*Effect upon sense of hearing.*

*Treatment.*—By artificial ear, by removal of overlapping portion, by dilatation.

#### MALFORMATIONS OF MEATUS AUDITORIUS EXTERNUS.

*Most frequent varieties.*—1. A very narrow canal. 2. An unusual shortness of canal. 3. A total absence of canal. 4. A closure of the canal at birth by a slimy caseous matter. 5. A closure of the orifice by the integument stretching across it and being attached to its margin; or by a membrane in any part of the canal; by a contraction in the cartilage, or by undue ossification of the bony part of the tube.

*Causes.*—Mostly congenital—sometimes acquired.

*Effect upon hearing.*

*Examination of meatus aud. externus.*

*Prognosis.*—Modified by cause.

*Treatment.*—Varies with the case.

#### MALFORMATIONS OF THE MIDDLE EAR.

*Importance.*—Most of them are attended with deafness, and the cause is generally not to be removed.

*Most frequent variations.*—1. The cavity has been found much smaller than usual. 2. The cavity has been inordinately large. 3. The outer wall has been ossified—in fact a bony plate has occupied the place of the membrana tympani. 4. The ossicula auditus are often varied in their conformation, thus one or more of them may be too small or too large, or deficient in ossification, or ossified together, or altogether wanting. Supernumerary bones have also been found. 5. The tympanum has been found filled with a soft white matter resembling inspissated albumen; also with a serofulous deposite. 6. The eustachian tube may be wholly or partially obliterated.

*Causes.*—1. Constitutional. 2. Acquired.

*Diagnosis.*—An examination will teach the condition of the membrana tympani. Catheterizing and injection of air will teach the condition of the eustachian tube.

*Prognosis.*—Only favorable in partial obliteration of the Eustachian tube.

*Treatment.*—Varies with the kind and cause.

#### MALFORMATIONS OF THE INTERNAL EAR.

Various malformations of the labyrinth have been noticed—it has been entirely wanting—it has been deficient in ossification—change in quantity and consistence of the liquor cotunnii has also been observed.

Such deficiencies are of course beyond the reach of art.

#### WOUNDS OF AURICLE.

*Usual varieties.*—Incised, lacerated, contused.

*Treatment.*—Differs in no respect from that for similar injuries in other parts; bearing in mind the deformity resulting from the loss of even a small portion, union is to be always attempted.

#### PARTICULAR DISEASES.

##### OTITIS.

*Definition.*—Generic term, implying general disease of the whole organ.

*Division of.*—Acute, chronic, external, internal.

External includes inflammation of the auricle, and of the meatus auditorius externus.

Internal includes inflammation of the tympanum and labyrinth.

*Causes.*—1. Exciting. 2. Predisposing.

*Symptoms and consequences.*—As acute inflammation seldom attacks the entire organ at the same time, or from the same cause, these vary according to the structure of the part inflamed, and will be described under the heads of diseases of particular parts.

#### ACUTE EXTERNAL OTITIS.

*Seat.*—Sometimes commences simultaneously in the auricle and meatus—more frequently it extends from the auricle to the canal—it however is sometimes limited to the meatus.

*Most frequent forms.*—Erysipilas, erythema, in short all the inflammatory actions either common or peculiar which affect the cutaneous system.

*Causes.*

*Symptoms.*—Vary with the form.

*Consequences.*

*Diagnosis.*

*Prognosis.*—Favorable.

*Treatment.*—1. Local. 2. General.

#### ACUTE INTERNAL OTITIS.

##### INFLAMMATION OF TYMPANUM AND LABYRINTH.

*Forms.*—Primary. Consecutive.

*Seat.*—Mucous lining membrane at first, then extending to cellular tissue, to periosteum and to the bone itself.

*Causes.*—Exciting. Predisposing.

*Symptoms.*—Agree with those of external otitis, differing only in consequence of their much greater severity, and of the circumstance of the matter formed not finding a ready outlet.

*Consequences.*

*Diagnosis.*—May be confounded with external otitis, with meningitis or phrenitis.

*Prognosis.*—Grave—as troublesome otorrhœa may result—the ossicula may be lost—the membrana tympani or the mastoid cells may be perforated—permanent closure of the eustachian tube may result—or phrenitis, meningitis, and death may follow.

*Treatment.*

#### CHRONIC OTITIS.

##### DIVISION—INTO EXTERNAL AND INTERNAL.

External is divided into that of the auricle and that of the auditory meatus.

Chronic Inflammation of the auditory meatus includes—

1st. Erythema of meatus with diminished secretion.

- 2d. Inflammation of dermal membrane with inordinate secretion.
- 3d. Polypus, fungus, and vegetations of auditory canal.
- 4th. Sinus of meatus.
- 5th. Inordinate ceruminous secretion.
- 6th. Aphthæ or herpetic ulcerations of lining membrane of meatus.

### CHRONIC INFLAMMATION OF THE AURICLE.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—Local and constitutional as the local affection is often maintained by general derangement of the health.

### CHRONIC INFLAMMATION OF MEATUS AUDITORIUS EXTERNUS.

#### ERYTHEMATIC CHRONIC DISEASE OF THE MEATUS.

*Synonyme.*—l' Otite chronique seche. (Roche.)

*Causes.*—General derangements of health.

*Symptoms.*—Uneasiness, slight pain, itching, dry sensation, difficulty of hearing, tinnitus aurium.

*Diagnosis.*—Tube unusually dry—wax in small quantity—most frequently a vitiated secretion of a white or yellowish scaly matter.

*Prognosis.*—Favorable.

*Treatment.*—Attention to general health—tonics—counter irritants—astrin-gents.

### II. CHRONIC INFLAMMATION OF DERMAL MEMBRANE WITH INORDINATE SECRETION.

*Synonymes.*—Humid chronic external otitis, (Roche) mucous or catarrhal otorrhœa. (Itard and Andral.)

*Frequency of occurrence.*—Very frequent.

*Age most liable.*—Childhood—sometimes occurs in old age.

*Causes.*—Acute inflammation—irritation of dentition—metastasis of gout, gonorrhœa, and mucous ophthalmia—presence of a foreign body.

*Symptoms.*—Usually mild—uneasiness—audition slightly diminished—pro-fuse discharge either serous, mucous, or puriform, or mixed.

*Diagnosis.*

*Prognosis.*

*Treatment.*—Removal of the cause—improvement of general health—cautious use of astringents.

### III. POLYPUS, FUNGUS, AND VEGETATIONS OF AUDITORY CANAL.

*Difference between them.*—Polypus is oval or round, attached by a single root, usually regular in its shape and firm in consistence. Fungus is a mass of exuberant granulations, soft and vascular, irregular in its shape and attach-



ments, and always attended with free discharge. Vegetations consist of numerous small diseased growths, sometimes soft and fungoid, at others, firm and conical, and attended with slight discharge.

*Causes.*—Chronic inflammation—local irritation from foreign bodies—injury to lining membrane by the ear-picker.

*Symptoms.*

*Diagnosis.*

*Prognosis.*—Favorable in polypus—not so favorable in fungus and vegetations.

*Treatment.*—By excision and caustics—by ligature—by extraction with forceps—by caustics alone.

#### IV. SINUS OF MEATUS.

*Definition.*

*Causes.*—An abscess external to the meatus—a diseased mastoid bone.

*Symptoms.*

*Diagnosis.*

*Prognosis.*—Unfavorable.

*Treatment.*—Modified by cause—palliative chiefly.

#### V. INORDINATE CERUMINOUS SECRETION.

*Causes.*—Acute or chronic inflammation of the meatus.

*Symptoms.*

*Diagnosis.*—May be confounded with almost any of the other diseases of the ear; a careful examination must decide.

*Prognosis.*—Favorable.

*Treatment.*—Allay any existing inflammation; remove any inspissated cerumen; apply some gentle stimulant. Dangers arising from incautious syringing.

#### VI. APHTHÆ OR HERPETIC ULCERATIONS OF LINING MEMBRANE OF MEATUS.

*Causes.*—Chiefly constitutional.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—Tonics, and alteratives for the general health; local alterative astringent injections.

#### FOREIGN BODIES IN THE MEATUS AUDITORIUS EXTERNUS.

*Nature of these.*—Round and smooth substances as beans, peas, glass beads; sometimes insects of various kinds.

*Origin of insects.*

*Symptoms.*—Those of chronic inflammation, occasioning an otorrhœa, where the cause continues to operate for any length of time.

*Treatment.*—Removal of the cause will sometimes alone be sufficient; solid substances may be removed by the forceps; insects may be removed by a few drops of oil, or of infusion of tobacco, &c. &c.

*Dangers arising from force applied for the extraction of foreign bodies.*

## INTERNAL CHRONIC OTITIS.

### CHRONIC INFLAMMATION OF MEMBRANA TYMPANI.

*Causes.*

*Effects.*—Ulceration; perforation; complete destruction.

*Mode of inspection and examination.*—By speculum; by forcible expiration; by sounding and by the otoscope.

*Symptoms.*

*Diagnosis.*—May be confounded with disease of meatus, or of tympanic cavity.

*Prognosis.*—Unfavorable to audition.

*Treatment.*

### CHRONIC INFLAMMATION OF TYMPANUM.

*Forms.*—Primary. Consecutive.

*Seat of disease.*—Mucous membrane; frequently extending to the cellular tissue, and onwards to periosteum and bone.

*Causes.*

*Effects.*—Perforation of membrana tympani; loss of ossicula; abscess of mastoid cells; caries of petrous bone; effusion of pus under dura mater or between the cerebral membranes.

*Symptoms.*

*Diagnosis.*—May be confounded with other inflammatory diseases of internal ear, with meningitis or phrenitis.

*Prognosis.*—Unfavorable.

*Treatment.*—Modified antiphlogistic; injections of mild fluids through the eustachian tube.

### RELAXATION OF MEMBRANA TYMPANI.

*Definition.*

*Varieties.*—1. From want of tone in the membrane. 2. Paralysis of the internal muscle of the malleus. 3. Rupture of the same muscle.

*Causes of each.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*—Of first two, favorable; of the last, unfavorable.

*Treatment.*—Dry warm tonic applications; tonic and astringent injections.

### CARTILAGINOUS AND OSSEOUS CONDITION OF MEMBRANA TYMPANI.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—By perforation.

*History of operation.*—First proposed by Cheselden; proposed and performed by Sir Astley Cooper in cases of obliteration of eustachian tube.



*Dangers of operation.*—Wound of vascular lining of membrane giving rise to effusion of blood; injury to the chorda tympani, and to the malleus.

*Mode of operation.*—A simple puncture by trocar, Astley Cooper's operation; by caustic, Richerand's; by drilling with a quadrangular perforator, Buchanan's, Himle's, &c.

#### OBSTRUCTION OF EUSTACHIAN TUBE.

*Forms.*—1. Partial. 2. Complete.

*Causes.*—Inflammation acute and chronic; extension from the throat of such diseases, as scarlatina, variola, syphilis, cynanche tonsillaris, enlarged tonsils, descent of nasal polypi.

*Symptoms.*

*Diagnosis.*—May be confounded with deafness from other causes.

*Prognosis.*—Favorable.

*Treatment.*—By reducing existing inflammation—by constitutional treatment, if the cause requires it—by dilatation, if stricture exists in the course of the tube.

#### MODE OF CATHETERIZING EUSTACHIAN TUBE.

*Instruments used.*

*History of operation.*—First performed on himself by Guyot a Post Master at Versailles, in the year 1700, revived by Itard, and materially improved.

*Indications for its use.*—1. An important means of diagnosis. 2. To remove mucous or blood from tympanic cavity or from eustachian tube. 3. To dilate a stricture. 4. To stimulate the nervous system of the ear.

*Dangers of the operation.*—1. Inflammation of throat, and catarrh of the tympanum. 2. Emphysema. 3. Rupture of membrana tympani. 4. Strangulation.

*Mode of passing instrument.*

*Air press.*

#### NERVOUS DISEASES OF THE EAR.

Arranged under two heads. 1. Disordered function of the acoustic nerve. 2. Disordered functions of the nerves of common sensibility and motion, or the tympanic nerves.

1. Disordered function of the acoustic nerve.

*Division.*—1. The excited or acute state. 2. The torpid or chronic state.

##### ACUTE STATE.

*Causes.*—From local affection—sometimes sympathetic with general health, or some disorder of brain, stomach, bowels, or uterus—from over-use of organ.

*Symptoms.*—Tinnitus aurium, deafness, an annoying pulsation synchronous with the heart.

*Diagnosis.*

*Prognosis.*

*Treatment.*—The removal of the cause, administration of tonics, alteratives, counterirritants.

## I. TORPID FUNCTIONAL DERANGEMENT.

*Age most liable.*—Old age.

*Causes.*—Over excitement of organ; severe constitutional disorder, &c.

*Symptoms.*

*Diagnosis.*—May be assisted by the absence of disease in the external and middle ear, by a want of perception of sounds when the cranial bones are thrown into vibration by a watch.

*Prognosis.*—Unfavourable.

*Treatment.*—Attention must first be paid to general health; various nervous excitants, as electricity and galvanism, may be tried. Application of æthereous vapour is recommended by Itard and Krahmer.

*Mode of introducing vapour.*

## II. FUNCTIONAL DERANGEMENT OF TYMPANIC NERVES.

*Synonyme.*—Otalgia or ear ache.

*Causes.* The common causes of neuralgia; enlarged tonsils; any local disease in the vicinity; direct injury in sounding the membrana tympani, or eustachian tube.

*Symptoms.*

*Diagnosis.*

*Prognosis.*—Favorable.

*Treatment.*

## FORMS OF DEAFNESS.

## DEAFNESS.

*Synonymes.*—Surditas, cophosis.

*Degrees.*—1. That marked by impossibility of hearing at all, usually congenital and a cause of dumbness. 2. By power of distinguishing certain sounds, as the pronunciation of the vowels, whistling, &c.

*Causes.*—Mostly congenital, sometimes acquired. The congenital cases most frequently depend on morbid changes in the soft parts, in a small proportion of cases upon an anomaly in the structure of the solid parts.

*Diagnosis.*

*Prognosis.*—Unfavorable in congenital cases; more favorable in acquired cases.

*Treatment.*

## HARDNESS OF HEARING.

*Synonyme.*—Dysæcia.

*Definition.*—Where the faculty of hearing is so diminished that articulate sounds cannot be heard without the assistance of some particular apparatus.

*Degrees.*—1. Where the individual cannot hear a distant noise, and especially high tones, but can perceive articulated sounds when the voice is a good deal raised. 2. He hears and distinguishes both high and low tones, and also words, but only when the voice is somewhat raised.

*Causes.*—Either some alteration in that part of the organ which serves as a

conductor for the vibration of sound; or also an increased sensibility of the acoustic nerve.

Alterations of the conductive parts are of two kinds; 1. A total obliteration of the meatus auditorius externus; its imperforation, or complete absence. 2. A diseased condition of the tympanum, as inflammation of its lining membrane; caries of its parietes; and collections of blood, pus, or other fluid in its cavity.

*Diagnosis.*—Of some alteration of conducting parts, may be assisted by the patient only hearing when solid bodies are placed between his teeth, while his dull perception of sound does not appear to be less when the ear is covered. Of some disease of tympanum, by the history, or by marks of previous inflammation.

*Prognosis.*—Unfavourable.

*Treatment.*

#### ALTERATION OR DIMINUTION OF HEARING.

*Synonyme.*—Paracusis.

*Definition.*—Where the faculty of hearing articulated sounds in the natural way, is imperfect for want of precision.

*Causes.*—1. Alterations of the membrana tympani from congenital malformation, or from thickening, ossification, perforation, or laceration. 2. The lodgment of fluid in the tympanic cavity, as in some cases of obstruction of the eustachian tube, as in some new born infants. 3. Alterations in the membrane of the fenestra rotunda, such as its imperfect form, its erroneous situation, its thickened state, &c. 4. Depression, or excitement of nervous influence, the natural consequence of the patient's sensibility.

*Diagnosis.*

*Prognosis.*

*Treatment.*

### V. INJURIES AND DISEASES OF THE NOSE.

#### WOUNDS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### FRACTURES OF THE OSSA NASI.

See "Fractures."

### EPISTAXIS.

- Definition.*
- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### ACUTE INFLAMMATION OF THE SCHNEIDERIAN MEMBRANE.

- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### CHRONIC INFLAMMATION WITH THICKENING OF THE SCHNEIDERIAN MEMBRANE.

- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### ABSCESS.

- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### CEDEMA OF THE SCHNEIDERIAN MEMBRANE.

- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### OZÆNA.

- Definition.*
- Causes.*
- Symptoms.*
- Diagnosis.*
- Prognosis.*
- Treatment.*

### ULCERATION OF THE NASAL CARTILAGES.

- Causes.*
- Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### CARIES AND NECROSIS OF THE NASAL BONES.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ENLARGEMENT OF THE INFERIOR TURBINATED BONE.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### DEVIATION OF THE SEPTUM NARIUM.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### LODGEMENT OF FOREIGN BODIES IN THE NOSTRILS.

*Nature of these bodies.*

*Mode of introduction.*

*Symptoms produced by their presence.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### FIBROUS TUMOURS AND CYSTS OF THE NOSTRILS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### POLYPUS OF THE NOSE.

*Definition.*

*Location.*

*Form.*

*Number.*

*Size.*

*Consistence.*

*Colour.*

*Termination.*

*Division.*—1. Nonmalignant. 2. Malignant.

1. Or nonmalignant.

a. The vesicular.

b. The gelatinous.

c. The fleshy.

d. The fibrous.

e. The hard.

2. Or malignant.

a. The cancerous.

b. The medullary or hæmatoid.

c. The schirrous.

*Causes.*—Of simple polypus.

*General symptoms.*

*Special symptoms.*—Each form is characterised by peculiar symptoms. State what these are.

*Causes of malignant polypus.*

*Special symptoms in each variety.*

*Diagnosis of polypus tumour.*—Has been confounded with a great variety of diseases, viz. enlarged turbinated bone; inclination of the septum; disease of the nasal bones; œdema of the mucous membrane; chronic inflammation; abscesses; œzena; fibrous tumours of the nostrils; polypus of the antrum; hernia cerebri; foreign bodies in the nostril.

*Prognosis.*—Depends on the form of polypus.

*Treatment.*—Varies in the different species of polypus.

#### EXTERNAL POLYPUS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### LIPOMA.

*Definition.*

*Causes.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### LOSS OF NOSTRIL OR THE ENTIRE NOSE.

See "Rhinoplastic operations."

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## VI. INJURIES AND DISEASES OF THE CHEEKS.

### WOUNDS.

*Varieties.*

*Parts liable to be involved.*

*Symptoms.*

*Prognosis.*

*Treatment.*

### TIC DOLEREUX.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

### SPASMODIC ACTION OF THE MUSCLES.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

### PARALYSIS OF THE CHEEK.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*—1. Constitutional. 2. Local.

1. Only required when the defect depends on a constitutional cause, and must be modified by the nature of this cause.

2. Or local.

a. Blisters.

b. Application of strychnia or veratria.

c. Electricity.

d. Acupuncture.

e. Excision of a portion of the cheek.

f. Section of the antagonising muscles. (Dieffenbach.)

### TUMOURS OF THE CHEEK.

*Varieties.*

*Mode of operating in each.*

### ULCERS OF THE CHEEK.

*Division.*—External and internal.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

MACULÆ.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

LOSS OF CHEEK.

See "Chieloplastic operations."

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VII. INJURIES AND DISEASES OF THE JAWS.

FRACTURES.

See "Fractures."

LUXATIONS.

See "Luxations."

WOUNDS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

INFLAMMATION OF THE LINING MEMBRANE OF THE ANTRUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ABSCESS OF THE ANTRUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ULCERATION OF LINING MEMBRANE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

SERO-CYSTIC TUMOUR OF ANTRUM.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FIBROUS TUMOUR OF ANTRUM.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FUNGUS TUMOUR OF ANTRUM.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

POLYPUS OF ANTRUM.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

BONY TUMOUR OF ANTRUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FOREIGN BODIES LODGED IN THE CAVITY OF THE ANTRUM.

*Varieties.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

OSTEO-SARCOMA OF UPPER JAW.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

OSTEO-SARCOMA OF LOWER JAW.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

SPINA-VENTOSA OF LOWER JAW.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

EXOSTOSIS OF LOWER JAW.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ANCHYLOSIS OF LOWER JAW.

*Varieties.*—True and false.  
*Causes of each.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

REMOVAL OF UPPER JAW.

*Mode of operating.*

REMOVAL OF LOWER JAW.

*Mode of operating.*

REMOVAL OF SYMPHYSIS OF LOWER JAW.

*Mode of operating.*

RESECTION OF DIFFERENT PORTIONS OF THESE BONES.

*Mode of operating.*

EPULIS.

*Definition.*  
*Varieties.*  
*Causes.*  
*Symptoms in each variety.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

PARULIS.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

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VIII. DISEASES OF THE SALIVARY APPARATUS.

I. DISEASES OF THE PAROTID GLAND AND ITS DUCT.

WOUNDS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

INFLAMMATION OF THE GLAND.

*Varieties.*—Acute and chronic.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

ABSCESS OF THE GLAND.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

TUMOUR OF THE GLAND.

*Varieties.*

a. Fatty.

b. Melanotic.

c. Encysted.

d. Fibrous.

e. Simple hypertrophy.

f. Erectile.

g. Aneurismal.

h. Swelling from salivary concretion.

i. Schirrous.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—In each variety.

#### TUMOURS OCCUPYING THE PAROTID SPACE.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### WOUNDS OF PAROTID DUCT.

*Varieties.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### FISTULA OF PAROTID DUCT.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*—Four methods. 1. Cicatrization of the Fistulous orifice. 2. Dilatation of inner portion of the duct. 3. The establishment of a new opening in the mouth, or forming a new portion of the canal, where the original has been destroyed. 4. Destruction of parotid gland.

Agents employed under the 1st head—

a. Suture.

b. Cauterization.

c. Compression.

d. Plastic operation.

Agents employed under the 2d head—

a. Seton.

b. Probing.

Agents employed under the 3d head—

a. Operation of Deroy.

b. " " Duphenix.

c. " " Monro

d. " " Tessard and Flajani.

e. " " Atti.

f. " " Deguise.

g. " " Bannafons.

h. " " J. Rhea Barton.

i. " " Horner.



Agents employed under the 4th head—

- a.* Pressure on the duct.
- b.* Ligature of duct.
- c.* Pressure on the gland itself.

#### FISTULÆ OF PAROTID GLAND.

*Varieties.*—Two.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*—*a.* Cauterization.

*b.* Suture.

*c.* Excision.

*d.* Blisters.

*e.* Gold leaf plaster of Malgaigne.

### II. DISEASES OF THE SUB-MAXILLARY GLAND.

#### WOUNDS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### FISTULA.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ENLARGEMENT OF THE GLAND.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### III. DISEASES OF THE SUBLINGUAL GLAND.

#### WOUNDS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## FISTULA.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## RANULA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## ENLARGEMENTS OF THE GLAND.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## SALIVARY CALCULI.

*Location.*

*Varieties.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

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# IX. DISEASES AND INJURIES OF THE MOUTH.

## I. AFFECTIONS OF THE LIPS.

### WOUNDS OF THE LIPS.

*Varieties.*

*Causes.*

*Symptoms.*

*Treatment.*

### TUMOURS OF THE LIPS.

*Varieties.*—Encysted, fatty, transparent cyst, enlarged follicles, verruca, moles, &c. &c.

*Causes.*—Vary in each form.

*Symptoms.*—Depend on the variety.

*Prognosis.*—Depends on the kind of tumour.

*Treatment.*—Varies with the form of tumour.

#### CANCER OF THE LIP.

*Points usually attacked.*—Margin, and especially that of the lower lip.

*Varieties.*—Superficial and deep seated.

*Causes.*

*Symptoms.*—Vary with the stage and form of cancer.

*Diagnosis.*

*Prognosis.*—More favourable than in any other form of cancer.

*Treatment.*

#### CANCER ORIS.

*Definition.*

*Persons most liable to be attacked.*

*Causes.*—Constitutional and local.

*Symptoms.*—Vary with stage.

*Prognosis.*—Unfavourable.

*Treatment.*—Depends on the stage of the disease, the part attacked, and the situation of the patient.

#### EVERSION OR DOUBLE LIP.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### HYPERTROPHY OF THE LIPS.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### ADHESIONS OF THE LIPS.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### HARE-LIP.

*Definition.*

*Varieties.*

*Lip most frequently affected.*

*Complications.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*—Depends on the age of the patient and the nature of the defect

*a.* The usual operation.

*b.* Barton's curvilinear operation.

*c.* Malgaigne's operation.

*d.* Operation without needles.

#### ATRESIA ORIS.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### MOUTH TOO LARGE.

See Report by Velpeau of a case where the mouth was open nearly to each ear.

#### LOSS OF LIP.

See "Chieloplastic operations."

### II. AFFECTIONS OF THE TONGUE.

#### WOUNDS OF THE TONGUE.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Results.*

*Treatment.*

#### GLOSSITIS.

*Definition.*

*Varieties.*—Acute and chronic.

*Causes.*

*Symptoms.*

*Prognosis.*

*Results.*

*Treatment.*

#### HYPERTROPHY OF TONGUE.

*Varieties.*—Congenital or acquired.

*Causes.*

*Symptoms.*

*Prognosis.*

*Effects on the bones of the mouth.*

*Treatment.*

a. Remedies calculated to promote absorption.

b. Pressure.

c. Ligature.

d. Scarifications.

e. Excision.

#### TUMOURS OF THE TONGUE.

*Varieties.*—Simple and malignant.

*Causes.*

*Symptoms.*

*Prognosis.*

*Diagnosis.*

*Treatment.*

#### FISSURE OF THE TONGUE.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### GLAZED TONGUE.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### ULCERS OF THE TONGUE.

*Varieties.*—Simple and malignant.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### CANCER OF THE TONGUE.

*Parts most frequently attacked.*

*Various forms presented in its origin.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### ADHESION OF THE TONGUE.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### TONGUE TYE

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### STAMMERING.

*Definition.*

*Causes.*—1. Congenital 2. Acquired. 3. Functional. 4. Organic.

*Symptoms.*—Vary in different cases.

*Prognosis.*—As regards relief.

*Treatment.*

*a.* Vocal gymnastics; (so called.)

*b.* Different surgical operations.

*c.* Acupuncture as proposed by Detmold.

*Examination of the results of these measures.*

#### DEFORMED TONGUE.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### PARALYSIS OF TONGUE.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

### III. DISEASES OF THE TONSILS AND ROOF OF THE MOUTH.

#### WOUNDS OF THE VELUM.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*



TUMOURS OF THE VELUM.

See "Warren and others."

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

INFLAMMATION.

*Varieties.*—Acute and chronic.  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

ABSCESS.

*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

ULCERS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

CLEFT VELUM.

*Varieties.*—Vary in extent.  
*Causes.*—Congenital.  
*Symptoms.*  
*Effect on the voice.*  
*Prognosis.*—As regards a cure by operation.  
*Treatment.*—Operation of staphyloraphia.

FISSURE AND OPENINGS OF THE HARD PALATE.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Effect on the voice.*  
*Prognosis.*  
*Treatment.*—Operations of staphyloraphia and staphyloplasty.

AFFECTIONS OF THE UVULA.

- a.* Cleft uvula.
- b.* Hypertrophy of uvula.
- c.* Enlarged uvula.
- d.* Œdema of the uvula.
- e.* Relaxation of the mucous membrane of the uvula.

*Causes in each of these defects.*

*Symptoms in each.*

*Prognosis in each.*

*Treatment in each.*

LODGEMENT OF FOREIGN BODIES IN THE FAUCES.

*Different kinds.*—Fish bones, bits of bread, pins and needles, a thimble, (see Parish,) &c.

*Symptoms developed by the lodgement of such matters.*

*Treatment.*

ENLARGEMENT OF THE TONSILS.

*Location of the gland.*

*Structure of the gland.*

*Different kinds of enlargement.*

- a.* From acute inflammation.
- b.* From chronic inflammation.
- c.* From contagious inflammation, as is seen in *anginosa putrida*.
- d.* From closure of the orifices of the follicles.
- e.* From inspissation of its secretion.
- f.* From calcareous deposits.

*Persons most liable.*—Children of a scrofulous diathesis.

*Causes.*—Vary with the kind of enlargement.

*Symptoms.*

*Effects on the thorax*—(see Warren.)

*Prognosis.*

*Treatment.*—Depends on the kind of enlargement.

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X. INJURIES AND DISEASES OF THE NECK.

I. SUPERFICIAL AFFECTIONS.

WOUNDS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

ABSCESS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

ULCERS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

TUMOURS OF THE NECK.

*Varieties.*—Simple and malignant.  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

HYDROCELE OF THE NECK.

See “Maunoir.”

*Definition.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

BRONCHOCELE.

*Definition.*—Tumour of thyroid gland ; from *Borxos* the windpipe.  
*Synonymes.*—Gotre or goitre, tracheocele, Derbyshire neck, Thyrophrasia, &c.  
*Varieties.*—Simple, complicated, and malignant—(see N. R. Smith.)  
*Age most liable.*  
*Countries in which it is usually found.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*—May be confounded with other tumours.  
*Prognosis.*  
*Complications.*—Often with disease of the heart.  
*Treatment.*  
    *a.* Iodine.  
    *b.* Mercury.  
    *c.* Frictions with various liniments.  
    *d.* Operations of various kinds.  
1. Electricity. 2. Caustics. 3. Seton. 4. Tapping when it contains a cyst.  
5. Ligation of the thyroid arteries. 6. Extirpation.  
*Examination of these different operations.*

HERNIA BRONCHALIS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Prognosis.*  
*Treatment.*

DEFORMITY FROM BURNS.

See "Chapter on cicatrices."

TORTICOLLIS OR WRY NECK.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

II. AFFECTIONS OF THE LARYNX AND TRACHEA.

WOUNDS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

INFLAMMATION.

*Varieties.*—Acute and chronic.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

ABSCESS.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

ULCERS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

ŒDEMA.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

SCALDS.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### CARIES OF THE CARTILAGES.

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### FOREIGN BODIES IN THE LARYNX OR TRACHEA.

*Nature of these bodies.*

*How introduced.*

*Symptoms developed by their presence.*

*Prognosis.*

*Effects when the case is not promptly relieved.*

*Treatment.*—Various operations.

*a. Tracheotomy.*

*b. Laryngotomy.*

*c. Laryngo Tracheotomy.*

*d. Operation of Malgaigne.*

#### ARTIFICIAL RESPIRATION.

*Manner of employing this measure.*

### III. AFFECTIONS OF THE PHARYNX AND ŒSOPHAGUS.

#### WOUNDS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

#### INFLAMMATION.

*Varieties.*

*Causes.*

*Location.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ABSCCESS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

EXOSTOSIS OF CERVICAL VERTEBRÆ.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

TUMOURS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

ULCERS.

*Varieties*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

LODGEMENT OF FOREIGN BODIES.

*Nature of these bodies.*

*How introduced.*

*Symptoms developed by their presence.*

*Prognosis.*

*Treatment.*—Various means, and as a last resort pharyngotomy or œsophagotomy.

DILATATION OR POUCH OF THE ŒSOPHAGUS.

*Causes*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment*

STRICTURE OF THE ŒSOPHAGUS.

*Varieties.*—1. Spasmodic. 2. Permanent. 3. Simple. 4. Malignant or cancerous.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*



SPASM OR NEURALGIA OF ŒSOPHAGUS.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

PARALYSIS OF ŒSOPHAGUS.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

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XI. INJURIES AND DISEASES OF THE THORAX.

WOUNDS.

*Varieties.*—Superficial and penetrating.

*Causes.*

*Symptoms.*—In each form.

*Prognosis.*—Depends on nature of the wounds, &c.

*Effects produced by a simple wound of the chest.*

*Treatment.*—In each variety.

WOUNDS OF THE LUNGS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

HERNIA PULMONALIS.

*Definition.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

WOUNDS OF THE HEART.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

WOUNDS OF THE INTERCOSTAL ARTERY.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

EMPHYSEMA.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

EMPHYSEMA—HYDROTHORAX—HYDROPS PERICARDII.

See "Chapter on effusions."

CARIES OF THE RIBS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

TUMOURS OF THE RIBS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

FRACTURES OF THE RIBS.

See "Fractures."

PARACENTESIS THORACIS.

See "Effusions."

DISEASES OF THE MAMMARY GLAND.

See "Amputation and diseases of females."

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XII. INJURIES AND DISEASES OF THE ABDOMEN.

WOUNDS.

*Varieties.*—Superficial and penetrating.

*Causes.*

*Symptoms in the first or superficial.*

*Prognosis in superficial wounds.*—Generally favorable, but may give rise to peritoneal inflammation, abscess, which may dissect up the integuments to a considerable extent in consequence of the resistance of the fascia, and finally to hernia from the weakness of the cicatrix.

*Symptoms in penetrating wounds when no important viscera are injured.*

*Prognosis in such cases.*

*Mode of examining such wounds.*

*Treatment in each form of wounds.*

*Treatment of penetrating wounds complicated with protrusions of the viscera.*

#### WOUNDS OF THE STOMACH.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### WOUNDS OF THE INTESTINES.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### WOUNDS OF THE LIVER.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### WOUNDS OF THE SPLEEN.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### WOUNDS OF LARGE VESSELS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## BLOWS ON THE ABDOMEN.

*Symptoms to which they give rise.*

*Prognosis.*

*Manner in which death is produced.*

*Treatment.*

## ABSCESS IN THE WALLS OF THE ABDOMEN.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis*

*Treatment.*

## TUMOURS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## FISTULÆ—(BEAUMONT'S CASE, &c.)

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

## ARTIFICIAL ANUS.

*Varieties.*

*Causes.*

*Symptoms.*

*Prognosis.*

*Treatment.*

## POISONS IN THE STOMACH.

*Introduction of the stomach pump.*

## PARACENTESIS ABDOMENIS. \*

See "Effusions."

## EXTRAVASATIONS IN THE CAVITY OF THE ABDOMEN.

*Fluids extravasated.*

*a. Blood.*

*b. Chyle and lymph.*

*c. Bile.*

d. Urine.

e. Fæces.

*Symptoms produced by these extravasations.*

*Prognosis.*

*Treatment.*

## HERNIA.

*Definition.*—Derived from the Greek *ερνος* a protrusion.

*Location.*—Groin, Umbilicus, Labia, Foramen ovale, Vagina, Perineum, Ischiatic notch and Diaphragm. Through the broad ligament, (Casteron and Saussier) Pilcher reports a case where the protrusion rested in a hollow of the bone of the pelvis. Mesenteric and Mesocolic hernia, and through the abdominal parietes.

*Contents.*—Vary in different cases.

*Size.*—Depends on the size of the viscus involved.

*Sac.*—Definition, mode of formation, and division. Cases in which the sac is wanting.

*Division.*—a. With reference to the contents of the hernia.—Enterocoele, Epiplocele, Entero-epiplocele, Gastrocele, Hepatocoele, Cystocoele, &c. &c.

b. With reference to the situation it occupies.—Inguinal or Bubonocoele—Oscheocoele or Scrotal—Merocele or Femoral—Exomphalos or Umbilical—Ventral—Ventre-inguinal—Phrenic, &c. &c.

c. With reference to the period of its appearance. Congenital and Acquired.

d. With reference to the condition of the contents. Reducible—Irreducible without Strangulation—Strangulated without Adhesion—Strangulated with Adhesion.

*Causes.*—1. Predisposing. 2. Exciting.

*Symptoms.*—Depend on the variety and location of the hernia; there are certain general symptoms characteristic of the *Reducible*, *Irreducible*, and *Strangulated*.

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*—Depends on the variety.

1. For reducible hernia.

a. The truss.

b. Injection of the sac.

c. Caustics.

d. Acupuncture.

e. Scarification.

(Velpeau.)

f. Introduction of gelatine strips,

(Belmas.)

g. Ligature of Schmucker.

h. Ligature of sac.

i. Seton or royal stitch.

j. Plastic operation.

(Jamieson.)

k. Pins.

(Bonnet.)

l. Invagination of integument.

(Gerdy.)

m. Do.

do.

(Velpeau.)

- n.* Rest in the horizontal position. (Ravin.)  
*o.* Hernotomy. (Detmold.)
- 
2. For irreducible hernia.  
*a.* Suspensary truss.  
*b.* Rest.  
*c.* Low diet for a length of time
3. For strangulated hernia.  
*a.* The taxis.  
*b.* Blood letting. (Pott.)  
*c.* Warm bath.  
*d.* Tobacco injection. (Heister.)  
*e.* Purgatives. (Monro and Sharpe.)  
*f.* Purgative injections.  
*g.* Opium.  
*h.* Introduction of a stomach tube into the rectum. (O'Beirne.)  
*i.* Distension of lower portion of the intestine. (Arnott.)  
*j.* Pressure and cold to the tumour. (Arnott.)  
*k.* Ice to the tumour.  
*l.* Application of ether to the tumour. (Vela.)  
*m.* Application of belladonna to tumour and urethra by means of a bougie.  
*n.* Application of a large cupping glass over the tumour.  
*o.* Reduction en masse. (Luke.)  
*p.* Operations.  
     1. The usual operation.  
     2. Subcutaneous operation. (Guerin.)  
     3. Division of stricture without opening the sac.  
     4. Dilatation without cutting the stricture. (Arnott and Le Blanc.)

*Question as to how long the operation may be deferred.*

*Treatment of the case after the stricture is divided.*

## PARTICULAR FORMS OF HERNIA.

### I. INGUINAL AND SCROTAL.

*Definition.*

*Varieties.*—1. Oblique. 2. Direct. 3. Concealed. 4. Congenital.

*Most common variety.*—The oblique.

*Sex most liable.*

*Anatomy of the parts concerned in inguinal hernia.*

*Mode of formation.*

*Seat of stricture.*

*Symptoms.*

*Diagnosis.*—May be confounded with 1. Hydrocele of both the tunica vaginalis and cord. 2. Circocoele. 3. Retained testis. 4. Diseased testis. 5. Hematocele. 6. Crural hernia. 7. Tumours of the scrotum.

*Diagnosis between oblique and direct hernia.*

*Prognosis.*

*Dissection of the tumour.*

*Treatment.*—Depends on the form.

## II. FEMORAL OR CRURAL HERNIA.

*Definition.*

*Sex most liable.*

*Varieties.*

*Anatomy of the parts concerned in femoral hernia.*

*Mode of formation.*

*Seat of stricture.*

*Symptoms.*

*Diagnosis.*—May be confounded with—1. Inguinal hernia. 2. Bubo. 3. Varicose femoral vein. 4. Psoas abscess. 5. Fatty tumour. 6. Aneurism.

*Prognosis.*

*Dissection of the tumour.*

*Treatment.*

## CONCEALED FEMORAL HERNIA.

*Definition.*

*Mode of formation.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

## III. UMBILICAL HERNIA.

*Definition.*

*Synonymes.*

*Varieties.*—1. Congenital. 2. That of young persons. 3. That of adults.

*Exact point of protrusion.*—Depends somewhat on the age of the individual.

*Contents of the hernia.*

*Form.*

*Size.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection of the tumour.*

*Treatment.*—Modified to suit the age of the individual.

## IV. VENTRAL HERNIA.

*Definition.*

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*



V. PUDENDAL HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

VI. VAGINAL HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

VII. PERINEAL HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

VIII. THYROIDAL HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

IX. VESICAL HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

X. ISCHIATIC HERNIA.

*Definition.*  
*Causes.*

*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

#### XI. PHRENIC HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

#### XII. MESENTERIC AND MESOCOLIC HERNIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

#### XIII. STRANGULATION OF INTESTINES WITHIN THE ABDOMEN

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

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#### XIII. INJURIES AND DISEASES OF THE ANUS AND RECTUM.

##### IMPERFORATE ANUS.

*Definition.*—Congenital occlusion of the natural orifice of the rectum.

*Varieties.*—*a.* Simple Contraction.

*b.* Closure by a thin membrane.

*c.* Termination of the rectum in a *cul-de-sac*, no vestige of the anus being present.

*d.* Termination of the rectum in other organs.

*e.* Formation of a septum above, while the anus itself is open.

*Causes.*

*Symptoms.*—Depend on the nature of the defect.

*Diagnosis.*—Has been confounded with colic, &c.

*Prognosis.*—Depends on the form.

*Treatment.*

*Treatment when the usual operations cannot be performed.*—Various operations for artificial anus.

#### WOUNDS AND LACERATIONS OF THE ANUS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### INFLAMMATION OF THE ANUS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ABSCESS OF THE ANUS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### PRURITUS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### NEURALGIA OF THE ANUS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### SPASM OF THE ANUS.

*Definition.*

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### ATONY OF THE ANUS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### BLÉNORRHOÏA OF THE ANUS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### HÆMORRHAGE FROM THE ANUS.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### ORGANIC STRICTURE OF THE ANUS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### TUMOURS OF THE ANUS.

*Varieties.*—Verrucæ, condylomata, &c.  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

### SCHIRROUS OF THE ANUS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### ULCERS OF THE ANUS.

*Varieties.*—*a.* Common Ulcer. *b.* Aphthous ulcer. *c.* Venereal ulcer.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### FISSURE OF THE ANUS.

*Definition.*

*Causes.*—Constipation, piles, hard fæces, mechanical injuries, spasm of the sphincter, &c. &c.

*Symptoms.*

*Diagnosis.*—Often confounded with neuralgia, sacs, &c.

*Prognosis.*

*Persons most liable.*—Women from their sedentary habits.

*Progress.*—Generally slow; may be rapid.

*Extent.*

*Treatment.*—Various methods employed—

*a.* Washes and ointments of various kinds.

*b.* Dilatation.

*c.* Incision of Sphincter.

*d.* Excision of fissure. (Mothe, Guerin, Velpeau, &c.)

### POUCH OF THE ANUS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### PROLAPSUS ANI.

*Definition.*

*Varieties.*—1. External. 2. Internal. 3. Prolapsus of the mucous membrane alone. 4. Prolapsus of all the coats of the intestine, (doubted by some.) 5. Reducible. 6. Irreducible.

*Causes.*—1. Predisposing. 2. Exciting.

1.—*a.* Childhood and old age. *b.* Constitutional relaxation. *c.* Want of tone in the muscular apparatus of the anus. *d.* Debility of the whole intestine. *e.* Peculiar arrangement of longitudinal fibres of the rectum.

2.—*a.* Constipation. *b.* Lodgment of foreign bodies in the rectum. *c.* Piles. *d.* Ascarides. *e.* Drastic purgatives. *f.* Prolapsus uteri. *g.* Stricture. *h.* Stone in the bladder. *i.* Violent coughs, &c.

*Extent.*—Varies in different cases.

*Symptoms.*—Depend on the form of displacement.

*Diagnosis.*—Piles, &c.

*Prognosis.*

*Treatment.*—Indications. 1. Return the protruded part. 2. Maintain it reduced. 3. Remove the cause of prolapsus.

*Mode of returning the Prolapsus.*

*Measures employed under the second indication.*—*a.* Laxative diet. *b.* Voiding fæces in the erect posture. *c.* Astringent washes and ointments. *d.* Pressure. *e.* Pessaries. *f.* Cold douche. *g.* Ligature of small folds of the mucous membrane, (Heavyside and Howship.) *h.* Excision of radiated folds, (Hey and Dupuytren.) *i.* Excision of a circular portion of mucous membrane, (Sabatier and Ricord.) *j.* Excision of a portion of the external sphincter, (Robert.) *k.* Radiated incisions and the nitrate of silver, (Coates.) *l.* Cautery, (Chesselden.)

*Measures employed under the third indication.*

*Treatment of irreducible prolapsus.*

## PROLAPSUS OF THE RECTUM.

*Definition.*

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## FISTULA IN ANO.

*Definition.*—A suppurating cavity of greater or less extent, situated in the neighbourhood of the anus and rectum, discharging by one or more orifices, either externally or into the gut, the walls of which it is very difficult to cause to adhere.

*Causes.*—Any cause, constitutional or local, calculated to produce inflammation in the cellular tissue surrounding the anus or rectum, may give rise to Fistula.

*Varieties.*—1. Incomplete or external blind Fistula. 2. Incomplete or internal blind, or occult Fistula. 3. Complete Fistula.

*Course or direction.*—Varies.

*Number.*—Varies.

*Depth or extent.*—Varies.

*Seat of the internal orifice in Fistula.*

*Symptoms.*—Vary with the variety.

*Mode of examining the Anus, for the detection of internal Fistula.*

*Diagnosis.*—May be confounded with urinary fistula, when external. Occult fistula may be confounded with *sacs of the rectum, internal piles, ulcers, hemorrhagia, &c.*

*Prognosis.*—Varies in different cases.

*Causes which prevent closure of the Sinus, and which must be overcome.*—1. The action of the sphincter and levator ani muscles. 2. The surfaces becoming callous. 3. Lodgment of pus. 4. The passage of fæcal matter through the fistula.

*Treatment.*—Various plans of treatment have been employed, and frequently constitutional as well as local remedies are required.

1st. or Constitutional.—Modified to suit the case.

2d. or Local—

- a. Baths, mineral waters, &c.
- b. Caustics and cautery.
- c. Compression—excentric and external.
- d. Ligature.
- e. Incision.
- f. Excision.

*After treatment when operations are performed.*

*Method to be preferred.*—Depends on circumstances.

#### PILES.

*Definition.*

*Varieties.*—1. Blind. 2. Open. 3. External. 4. Internal.

*Causes.*

*Sex most liable.*

*Class of Society most liable.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*—1. Palliative. 2. Radical.

#### WOUNDS OF THE RECTUM.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### RECTITIS.

*Definition.*

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*



ABSCESS OF THE RECTUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ULCERS OF THE RECTUM.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FOREIGN BODIES LODGED IN THE RECTUM.

*Nature of these bodies.*  
*Mode of Introduction.*  
*Symptoms developed by their presence.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

STRICTURE OF THE RECTUM.

*Definition.*  
*Varieties.*—1. Spasmodic. 2. Permanent.  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

SCHIRROUS OF THE RECTUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ESTABLISHMENT OF AN ARTIFICIAL ANUS IN CERTAIN CASES OF  
COMPLETE OBSTRUCTION OF THE RECTUM.

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## XIV. INJURIES AND DISEASES OF THE URINARY APPARATUS.

Under this head is included all the affections of the Kidney, Ureter, Bladder, Perineum, Prostate, and Urethra.

### I. AFFECTIONS OF THE KIDNEY.

#### WOUNDS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### NEPHRITIS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### ABSCCESS IN KIDNEY.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### PYELITIS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

#### HÆMATURIA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ALBUMINURIA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### DIURESIS SIMPLEX.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### DIURESIS UREOSA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### DIURESIS SACCHARINA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### DIURESIS CHYLOSA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### DIURESIS SEROSA.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### SUPPRESSION OF URINE.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

#### URINARY CALCULI.

*Definition.*

*Forms assumed by Calculus Matter.*—*a.* Amorphous sediments. *b.* Crystallized sediments or gravel. *c.* Solid concretions or Stones.

##### 1. *Amorphous Sediments and Gravel.*

Lithic Sediments—

*a.* Yellowish sediment.

*b.* Red or lateritious sediment.

*c.* Pink sediment.

Crystallized Lithic Deposites.

*a.* Red gravel.

Oxalic Acid Deposites.

Phosphatic deposits—

*a.* Triple Phosphate, or Phosphate of Ammonia and Magnesia.

*b.* Phosphate of Lime.

*c.* Mixed or Fusible Phosphates.

##### 2. *Stone or Calculus.*

*Varieties.*

*a.* Lithic acid.

*b.* Lithate of ammonia.

*c.* Phosphate of Lime or bone-earth.

*d.* Phosphate of Ammonia and Magnesia, or Triple.

*e.* Phosphate of Lime and Ammonia, and Phosphate of Magnesia, or mixed Phosphate, or Fusible.

*f.* Oxalate of lime or mulberry.

*g.* Carbonate of lime.

*h.* Alternating.

*i.* Mixed.

*j.* Cystic oxide.

*h.* Xanthic oxide.

*l.* Fibrinous.

*m.* Silicious.

*n.* Prostratic.

*Origin and ingrement of calculi.*

*Forms of calculi.*

*Size.*

*Specific gravity.*

*Surface.*

*Colour.*

*Odour.*

*Nucleus.*

*Consistence.*

*Chemical composition of the individual calculi.*

#### CALCULUS IN THE KIDNEY.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## II. AFFECTIONS OF THE URETER.

#### WOUNDS.

*Varieties.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### INFLAMMATION.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### PASSAGE OF CALCULUS MATTER ALONG THE URETER.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

STONE IN THE URETER.

*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

DILATATION.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

III. AFFECTIONS OF THE BLADDER.

WOUNDS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

RUPTURE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

ACUTE INFLAMMATION OF THE MUCOUS COAT.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

CHRONIC INFLAMMATION OF THE MUCOUS COAT.

*Synonyme.*—Catarrhus vesicæ.  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

INFLAMMATION OF THE MUSCULAR COAT.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

INFLAMMATION OF THE PERITONEAL COAT.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

IRRITABLE BLADDER.

*Definition.*  
*Causes.*—Teething, &c.  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

SPASM OF THE BLADDER.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

PARALYSIS OF THE BLADDER.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Dissection.*  
*Treatment.*

RETENTION OF URINE.

*Definition.*  
*Causes.*—Paralysis of bladder. Inflammation of bladder. Spasm of the neck



of the bladder, from cold, excess in wine, cantharides, &c. Irritation produced by dentition, hysteria, &c. Enlarge prostate, displacements of the womb, pregnancy, stricture of the urethra, calculus, laceration of urethra, abscess and tumours of the bladder.

*Age most liable.*

*Sex most liable.*

*Symptoms.*—Depend very much on the cause.

*Diagnosis.*—Incontinence, tumour of the bladder, &c.

*Prognosis.*—Depends on the cause.

*Treatment.*—*a.* Warm bath. *b.* Opiate injection. *c.* Eracuant injection. *d.* Loss of blood, general and topical. *e.* The catheter. *f.* Forcing the stricture or dividing it, where it exists as the cause of retention. *g.* Puncturing the bladder, which may be done in the three places by the *rectum*, above the *pubes* or by the *perineum*.

*Remedies useful in certain rare cases.*

*a.* Quinine in intermittent or periodic attacks.

*b.* Caustic bougie in irritable neck of bladder or spasmodic stricture.

*c.* Affusion of cold water in relaxed patients.

*d.* Strychnia in paralysis of bladder.

*e.* Alkalies, when the urine is too acid.

*f.* Large doses of opium, and perfect quiet when the usual modes of relief fail.

#### INCONTINENCE OF URINE.

*Definition.*

*Age most liable.*—Early life and advanced age.

*Causes.*—Diseased urine; habit; irritable bladder, hereditary predisposition, paralysis of the sphincter vesicæ from any cause, &c.

*Symptoms.*

*Diagnosis.*—Retention of urine, contracted bladder, &c.

*Prognosis.*

*Treatment.*—Depends on the cause.

#### HYPERTROPHY OF THE BLADDER.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### CONTRACTION OF THE BLADDER.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

SACCULATED BLADDER.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

ULCERS OF THE BLADDER.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

TUMOURS OF THE BLADDER.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

SCHIRROUS AND FUNGUS OF THE BLADDER.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

HERNIA VESICÆ AND PROTRUSION OF THE BLADDER.

(See "Hernia.")

RECTO-VESICAL FISTULA.

*Definition.*

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

VESICO-VAGINAL FISTULA.

*Definition.*

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### STONE IN THE BLADDER.

*Mode of formation in the bladder.*

*Causes.*—1. Predisposing. 2. Local.

1. *Or predisposing.*—*a.* Sex. *b.* Race. *c.* Age. *d.* Constitution. *e.* Climate. *f.* Mode of life. *g.* Water. *h.* Dyspepsia.

2. *Or local.*—*a.* Stricture of the urethra. *b.* Enlarged prostate. *c.* Sacs of the bladder. *d.* Paralysis of the bladder. *e.* Chronic inflammation of the bladder. *f.* Lodgement of foreign bodies of different kinds in the bladder, which serve as nuclei.

*Varieties.*

*Size.*

*Form.*

*Number.*

*Mode of growth.*

*Condition in the bladder.*—Encysted, or loose, or encrusted.

*Symptoms.*—Depend on a variety of circumstances.

*Diagnosis.*—Manner of sounding and use of the stethoscope, &c.

*Prognosis.*—Depends on the age and sex of the person, the condition of the organs concerned, and the size, composition, and condition of the stone in the bladder.

*Dissection of the bladder when the stone has existed for some time.*

*Effects upon the ureter and kidneys.*

*Treatment.*—Several indications.

*a.* Remove the diseased state of the urine upon which the secretion of the stone depends.

*b.* Palliate the sufferings of the patient.

*c.* Remove the stone.

1. This indication may be fulfilled by a number of agents, most of which have already been alluded to under the head of "Calculus."

2. The second may be accomplished by demulcent drinks, acid or alkaline medicine according to the composition of the stone, warm baths, leeches, anodyne injections, and perfect rest.

3. The third is answered by a variety of methods.

*a.* Extraction by the urethra.

*b.* Solution by injections.

*c.* Lithotomy, which includes—1. Cutting upon the gripe. 2. The high operation. 3. The single lateral. 4. The bilateral. 5. The recto vesical.

*d.* Lithotritry and Lithontripsy.

*Preparation of the patient for either of these operations.*

#### EXTRACTION BY THE URETHRA.

*Cases to which it is applicable.*

*Condition of the bladder before the instrument is introduced.*

*Instruments employed.*

*Position of the patient during the operation and mode of performing it.*

#### SOLUTION BY INJECTIONS.

*Cases to which it is applicable.*

*Agents employed as solvents.*

*Manner of using them.*

*Dangers.*

*Utility of the measure discussed.*

#### LITHOTOMY.

##### 1. Cutting on the Gripe or Celsian operation.

*Cases to which it is applicable.*

*Manner of performing it.*

*Dangers.*

*Utility of the operation discussed.*

##### 2. The High or Hypogastric operation.

*History of the operation.*

*Anatomy of the parts concerned in the operation.*

*Cases to which it is deemed applicable.*

*Supposed advantages of the operation.*

*Dangers of the operation.*—1. Peritonitis. 2. Extravasation of Urine. 3. Wounds of the peritoneum. 4. Lodgements of fragments of the stone. 5. Hemorrhage. 6. Urinary fistula.

*Instruments employed.*

*Manner of performing the operation.*

*After treatment.*

##### 3. The simple Lateral.

*History of the operation.*

*Anatomy of the parts concerned in the operation.*

*Cases to which it is deemed applicable.*

*Supposed advantages of the operation.*

*Dangers.*—1. Peritonitis. 2. Extravasation of urine. 3. Cystitis. 4. Hemorrhage. 5. Inflammation with sloughing. 6. Incontinence of urine. 7. Fistula. 8. Wounds of the rectum.

*Instruments employed.*

*Manner of performing the operation.*

*After treatment.*

##### 4. The Bilateral.

*History of the operation.*

*Anatomy of the parts concerned in the operation.*

*Cases to which it is deemed applicable.*

*Supposed advantages of the operation.*

*Dangers.*

*Instruments employed.*

*Manner of performing the operation.*

*After treatment.*

## 5. The Recto-vesical.

*History of the operation.*

*Anatomy of the parts concerned in the operation.*

*Cases to which it is deemed applicable.*

*Supposed advantages of the operation.*

*Dangers.*

*Instruments employed.*

*Manner of performing the operation.*

*After treatment.*

## LITHOTRITY.

*History of the operation.*

*Cases to which it is deemed applicable.*

*Supposed advantages of the operation.*

*Dangers.*

*Instruments employed.*

*Manner of performing the operation.*

*Treatment during the course of operations.*

## LITHONTRIPSY

*History of the operation.*

*Cases to which it is deemed applicable.*

*Advantages of the operation.*

*Dangers.*

*Instruments employed.*

*Manner of performing the operation.*

*Treatment during the course of operations.*

## STONE IN THE FEMALE.

*Symptoms.*

*Operation to be preferred when an operation becomes necessary.*

*Manner of performing the different operations.*

## HYDATIDS AND ENTOZOOA OF DIFFERENT KINDS IN THE BLADDER.

*Varieties.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

IV. AFFECTIONS OF THE PROSTATE GLAND.

WOUNDS OF THE PROSTATE.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ACUTE INFLAMMATION OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ABSCESS OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ULCER OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

CHRONIC INFLAMMATION, WITH ENLARGEMENT OF THE  
PROSTATE.

*Causes.*  
*Persons most liable.*  
*Progress.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

CHRONIC INFLAMMATION WITH ATROPHY OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

POUCH OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

HÆMORRHAGE FROM THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

EXCESSIVE SECRETION OF THE PROSTATE.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

PROSTATIC CALCULI.

*Nature.*  
*Causes.*  
*Number.*  
*Size.*  
*Composition.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

MALIGNANT DISEASE OF THE PROSTATE.

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V. AFFECTIONS OF THE PERINEUM.

WOUNDS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ACUTE INFLAMMATION.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ABSCESS IN THE PERINEUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

URINARY INFILTRATION.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

DEPOSITES OF LYMPH.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FISTULA.

*Definition.*  
*Causes.*  
*Symptoms.*

*Diagnosis.*  
*Prognosis*  
*Treatment.*

## NEURALGIA.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

## VI. AFFECTIONS OF THE URETHRA.

### WOUNDS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

### HÆMORRHAGE FROM THE URETHRA.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

### RUPTURE OR LACERATION.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

### FALSE PASSAGE.

*Definition.*  
*Causes.*  
*Symptoms*  
*Diagnosis.*  
*Prognosis.*  
*Treatment*

### ACUTE INFLAMMATION.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### CHRONIC INFLAMMATION.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### GLEET.

*Definition.*

*Causes.*—An improperly treated gonorrhœa—disease of Cowper's gland, or the mucous lacunæ of the urethra; disease of the prostate; strictures; sometimes constitutional causes, as scrofula, gout, rheumatism, &c.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—Astringent and alterative injections; the argente nit; in substance; bougies, medicated or simple; constitutional remedies, &c.

### GONORRHŒA.

*Definition.*

*Causes.*

*Symptoms.*—1. Those affecting the part itself. 2. Those attacking other parts from sympathy.

*Period of incubation.*

*Diagnosis.*

*Prognosis.*

*Extent of the inflammation.*

*Products of the disease.*

*Connection between gonorrhœa and syphilis.*

*Treatment.*

### STRICTURE.

*Definition.*

*Varieties.*—1. Permanent. 2. Spasmodic. 3. Mixed

*Most common Variety.*—The permanent.

*Seat of spasmodic stricture.*

*Causes.*—Vary with the form of stricture.

*Progress.*—Usually increases very slowly.

*Number.*—Varies.

*Extent.*—Varies.

*Location.*—1. At the orifice. 2. Near the middle. 3. Near the bulb. Surgeons do not agree, however, on this point.

*Symptoms.*—1. Local. 2. Constitutional.

*Diagnosis.*—May be confounded with gleet; diseased prostate; stone in the bladder; hernia humoralis; neuralgia of the testis; neuralgia of the perineum; ague, &c.

*Prognosis.*—Depends on the variety of stricture, the age and health of the patient, &c.

*Termination.*—May occasionally terminate in ulceration and thus a cure be accomplished.

*Effects on adjacent organs.*

*Treatment.*—Mode of examining the urethra.

*Different methods of treatment.*

a. Dilatation. By bougies, Arnott's dilators, &c.

b. Caustic.

*Local remedies.*—c. Incision from within.

d. Incision from without.

e. Forcing the stricture.

f. Excision.

g. Catheterism.

h. Cauterizing with argent: nit; to allay irritability.

*Constitutional.*—a. Blood-letting.

*Remedies.*—b. Hot bath.

c. Opium.

When the stricture is impervious and the patient cannot pass urine, the bladder must be tapped, but this should never be done until all our other remedies have been employed.

## FISTULA.

*Definition.*

*Varieties.*—1. In urethra anterior to perineum. 2. In urethra, and discharging through the perineum.

*Causes.*—Inflammation and abscess, wounds, &c.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*—Remove the cause if possible, then use according to circumstances the catheter, caustics, suture, incision, blisters, plastic operation.

CONTRACTION OF THE ORIFICE OF THE URETHRA.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

ORIFICE TERMINATING TOO FAR BACK.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

TUMORS OF THE URETHRA.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

PAINFUL TUMOR OF THE FEMALE URETHRA.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

HARDENING OF THE FEMALE URETHRA.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

FOREIGN BODIES IN THE URETHRA.

*Varieties.*  
*Mode of introduction.*  
*Symptoms to which they give rise.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

CALCULI IN THE URETHRA.

*Mode of introduction.*

*Symptoms to which they rise.*

*Manner of removing them.*

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XV. DISEASES OF THE PENIS.

EPISPADIAS.

*Definition.*

*Varieties.*

*Causes.*—Mostly congenital—sometimes accidental.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

HYPOSPADIAS.

*Definition.*

*Varieties.*

*Causes.*—Mostly congenital.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

PECULIAR MALFORMATION OF METTEAUR.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

BENT OR DISTORTED PENIS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

PRIAPISM.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

INFLAMMATION OF THE PENIS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

ABSCESS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

URINARY ABSCESS.

*Definition.*

*Causes.*

*Varieties.*—The urine may be collected in a single pouch or cavity, bounded by adhesive inflammation; it may be widely diffused in the cellular tissue; or it may be mixed with pus, forming a urinary abscess proper.

*Causes.*—Perforation of the urethra from wounds, ulceration, &c.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

WOUNDS OF THE PENIS.

*Varieties.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

CEDEMA.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

TUMORS.

*Varieties.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

WARTS.

*Definition.*  
*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

SHORT PREPUCIUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

CONTRACTION OF PREPUCIUM.

*Causes.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

PHIMOSIS.

*Definition.*  
*Causes.*—1. Congenital. 2. Acquired.



*Degrees.**Symptoms.**Diagnosis.**Prognosis.*

*Treatment.*—Varies with the cause. In congenital cases an operation is usually required, when produced by accidental causes, we should never operate without a due regard to the condition of the parts.

*Operations.*—1. Slitting up the prepuce. 2. Circumscision. 3. Division of external portion, the mucous lining being left entire. 4. Lisfrane's operation. Removing a semicircular slice. 5. Velpeau's operation. Removing a triangular piece.

*Operation to be preferred.*

### PARAPHYMOSIS.

*Definition.**Causes.**Degrees.**Symptoms.**Diagnosis.**Prognosis.*

*Treatment.*—1. Compression. 2. Cold. 3. Operation.

### BALANITIS.

*Definition.**Causes.**Symptoms.**Diagnosis.**Prognosis.**Treatment.*

### POSTHITIS.

*Definition.**Causes.**Symptoms.**Diagnosis.**Prognosis.**Treatment.*

### SIMPLE ULCER.

*Varieties.**Causes.**Symptoms.**Diagnosis.*

*Prognosis.*

*Treatment.*

#### ABRASIONS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### HERPES PREPUTIALIS.

*Definition.*

*Causes.*

*Age most liable,*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### OEDEMA OF PREPUCE.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ADHESION OF PREPUCE.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### LOSS OF PREPUCE.

*Causes.*

*Effects to which it gives rise.*

*Treatment.*

#### SYPHILIS.

*Definition.*—*συ φιλέω* (mutual love.)

*Synonymes.*—*Lues veneria*, venereal disease, *morbus gallicus*, *pox*, &c

*History.*—1. Was syphilis known to the ancients? 2. Was it imported from America into Europe? 3. If not imported thus, when and where did it originate?

*Causes.*—Supposed by some to occur often *spontaneously*. Impure sexual intercourse. (See Skey.)

*Period of incubation.*

*Question of a special virus.*—Broussais and his school and others also, denied the existence of a specific virus. The experiments of Ricord, Parker, Carmichael, Mayo, Wallace, &c. prove the contrary.

*Does gonorrhœal matter ever produce the primary symptoms of syphilis?*

*Classification of symptoms.*—

1. Primitive or direct.
  2. Successive.
  3. Secondary.
  4. Tertiary.
  5. Diseases unconnected with syphilis. (Ricord.)
- or,
1. Primary or local.
  2. Consecutive, general, or constitutional. (Hunter.)

## PRIMARY SYPHILIS.

### CHANCER.

*Definition.*

*Mode of development.*—1. Pustule. 2. Ulceration or abrasion. 3. Abscess.

*Physical character.*—Varies with the location, number, degree of inflammation, duration, &c.

*Character of the Pus.*—Varies, and is modified by the stage of the chancre.

*Stages of Chancre.*—1. Ulceration, during which the matter secreted will produce the disease if we inoculate with it; it may last several years, but usually only one or two months. (Ricord.)

2. Granulation and Cicatrization. The matter secreted now ceases to possess inoculable properties.

*Division.*—1. External.

2. Internal, larvated or concealed.

1. Follicular.

2. Indurated.

3. Phagedenic.

4. Furunculus.

*Seat of Chancre in the different sexes.*

*Causes.*—Sexual intercourse, touching a chancre; during labor the child may be inoculated.

*Diagnosis.*—Often difficult.

*Prognosis.*—Varies with the form of chancre. Chancre produced by artificial inoculation; characteristics of—(Ricord.)

*Prophylaxis*

*Treatment of chancre.*—1. Local. 2. Constitutional.

*Cases in which mercury should be employed.*

*Cases in which it should not be administered.*

*Extent to which it should be carried.*

## CONSECUTIVE SYPHILIS.

### I. BUBO.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### II. SYPHILITIC CUTANEOUS AFFECTIONS.

*Varieties.*

*Period at which they appear.*—Sometimes along with the primary symptoms, but generally after these are cured.

*Parts of the body most liable to be attacked.*

*Symptoms.*—1. Local. 2. Constitutional.

*Diagnosis.*

*Prognosis.*

*Treatment.*

### III. SYPHILITIC SORE THROAT.

*Period at which it appears.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### IV. GLANDULAR DISEASE FROM SYPHILIS.

*Glands most liable.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### V. IRITIS FROM SYPHILIS.

*Period at which it makes its appearance.*

*Symptoms.*

*Diagnosis.*  
*Prognosis.*  
*Treatment.*

## VI. SYPHILITIC RHEUMATISM.

*Period at which it makes its appearance.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

## VII. NODES.

*Definition.*  
*Period at which they appear.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

## VIII. DISEASE OF THE BONES FROM SYPHILIS.

*Varieties.*  
*Symptoms.*  
*Diagnosis.*  
*Prognosis.*  
*Treatment.*

## IX. ALOPECIA.

*Definition.*  
*Treatment.*

## AMPUTATION OF PENIS.

*Cases requiring the operation.*  
*Mode of performing the operation.*

## CANCER OF PENIS.

*Symptoms.*—Commencing with a wart, or a tubercle on the prepuce, frenum, or glans penis, and often remaining quiet for years. Being irritated, it becomes painful and enlarges, often rapidly and to a very great extent; ulceration then takes place, accompanied by a discharge of sanious fetid matter; pain, sometimes excessive; constitutional symptoms and inflammation of glands of groin.

*Diagnosis.*—May be confounded with venereal warts, or simple tumors; in its ulcerated stage, with sloughing ulcers.

*Tissue affected.*

*Prognosis.*

*Treatment.*

## XVI. DISEASES OF THE TESTIS.

Under this head are included diseases of the testis itself; diseases of the spermatic cord; and diseases of the scrotum.

### I. DISEASES OF THE TESTIS.

#### SUPERNUMERARY TESTIS.

*Numerical increase.*—Generally one; three have been enumerated.

*Diagnosis.*—May be confounded with epiplocele, fatty or fibrous tumours in the scrotum, or an encysted hydrocele of the cord.

#### ABSENCE OF ONE OR BOTH TESTES.

*Diagnosis.*

*Consequences.*

#### IMPERFECT DESCENT OF THE TESTIS.

*Varieties.*—Where one or both testes have been detained in the abdomen near the internal ring, in the inguinal canal, or in the groin just outside the external ring.

*Causes.*—Peritonitis before birth causing adhesions; congenital smallness of the external ring; want of power in the cremaster.

*Consequences.*—Depend on the situation of the testis; if it is retained within the abdomen no uneasiness or inconvenience is experienced, nor are the generative functions likely to be interfered with; if however, it should be retained within the canal, it is liable to compression by muscular action, it is exposed to injury from blows and various other causes all of which may interfere with its development, may impede its nutrition, or excite disease.

*Diagnosis.*—May be confounded with bubonocoele, &c.

*Importance of correct diagnosis.*

*Prognosis.*

*Treatment.*

#### DESCENT OF TESTIS INTO THE PERINEUM.

*Causes.*

*Diagnosis.*

*Treatment.*

## ATROPHY OF THE TESTIS.

*Division.*—Into that which arises from arrest of development, and that the consequence of wasting.

*Causes.*—Of first variety, imperfect descent, congenital inguinal hernia, congenital imperfection of the brain; of the second variety, inflammation, injuries of the head, impeded circulation, pressure, want of exercise, loss of nervous influence, excessive venery, and by some writers the long continued use of iodine.

*Diagnosis.*

*Prognosis.*

*Treatment.*

## INJURIES OF THE TESTIS.

*Nature of these.*—Contusions and wounds.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## HYDROCELE.

*Division.*—Into Simple Hydrocele of the Testis; Congenital Hydrocele, and Encysted Hydrocele of the Testis; Diffused Hydrocele of the Spermatic Cord; Encysted Hydrocele of the Cord; Hydrocele of the Hernial Sac; Hydrocele of the Female.

## I. HYDROCELE OF THE TESTIS.

*Definition.*

*Varieties.*—Single and double.

*Characteristics of fluid.*—Its nature; its quantity.

*Predisposing causes.*—Age and climate.

*Exciting causes.*—Inflammation, obstruction of circulation, inguinal hernia, strains, or great fatigue, blows, the presence of loose bodies in the tunica vaginalis testis, and disease of the testis itself.

*Symptoms.*—A pyriform swelling, elastic, and fluctuating, transparent, movable but remains constant under pressure, little or no pain.

*Time required for its formation.*

*Situation of testis.*

*Diagnosis.*—May be confounded with scrotal hernia, or malignant disease of the testis, or varicocele, &c.

*Mode of examination.*

*Prognosis.*

*Treatment.* By external remedies and by operation; treatment by operation is either palliative or radical.

*Nature of external remedies.*—Cases to which they are suited.



*Palliative treatment by operation.*—By tapping ; by acupuncture.

*Period required for its re-accumulation.*

*Radical treatment by operation.*—By incision ; excision ; caustic ; tent ; seton ; electro-puncture ; and by injection.

*Operation to be preferred.*

*Apparatus required.*

*Kinds of injection.*

*Dangers of operation.*

*Advantages of.*

*Complications.*—Encysted hydrocele of the testis ; encysted hydrocele of the cord ; diffused hydrocele of the cord ; oscheo-hydrocele.

## II. CONGENITAL HYDROCELE OF THE TESTIS.

*Definition.*

*Symptoms.*

*Diagnosis.*—May be confounded with simple hydrocele, or reducible scrotal hernia.

*Prognosis.*

*Treatment.*—By truss and by injection.

*Dangers of latter.*

## III. ENCYSTED HYDROCELE OF THE TESTIS.

*Definition.*

*Structure of cyst.*

*Situation of cyst.*—Either beneath that part of tun. vagin. testis covering the epidymis ; between the tun. vaginal. testis and the tun. albuginea ; or between the layers of the outer portion of the tunica vaginalis.

*Usual situation.*

*Nature of fluid.*

*Symptoms.*

*Diagnosis.*—May be confounded with simple hydrocele.

*Prognosis.*

*Treatment.*

*Operation to be preferred.*

## IV. DIFFUSED HYDROCELE OF THE SPERMATIC CORD.

*Nature and seat of disease.*

*Symptoms.*

*Diagnosis.*—May be confounded with an omental hernia, an encysted hydrocele, or varicocele, or retained testis.

*Prognosis.*—Favorable.

*Treatment.*



## V. ENCYSTED HYDROCELE OF THE SPERMATIC CORD.

*Definition.*

*Age most liable.*

*Nature and seat of cyst.*

*Causes.*

*Symptoms.*

*Diagnosis.*—May be confounded with simple hydrocele or with hernia.

*Prognosis.*

*Treatment.*—Palliative and radical by operation; operation of Mr. Hey and others.

## VI. HYDROCELE OF THE HERNIAL SAC.

*Definition.*

*Causes.*—Congenital and accidental.

*Diagnosis.*—May be confounded with simple hydrocele, or encysted hydrocele of the cord, or with hernia.

*Treatment.*

## VII. HYDROCELE IN THE FEMALE.

*Varieties.*—Diffused and encysted hydrocele of the round ligament; hydrocele of the canal of Nuck.

*Diagnosis.*

*Prognosis.*

*Treatment.*

## HÆMATOCELE.

*Definition.*

*Varieties.*—That of tunica vagin. testis, and that of the cord.

### I. HÆMATOCELE OF THE TESTIS.

*Varieties.*—Where the extravasation takes place in the healthy state of the parts; where it succeeds or is combined with a hydrocele.

*Causes.*—A blow or strain, or a wound of some vessel of tun. vagin. testis, testis itself, or of spermatic artery.

*Situation of testis.*

*Consequences.*

*Symptoms.*

*Diagnosis.*—May be confounded with hydrocele, chronic enlargement of the testis, extravasation of blood in the cellular tissue of scrotum.

*Prognosis.*

*Treatment.*

## II. HÆMATOCELE OF THE SPERMATIC CORD.

### *Causes.*

*Liability of occurrence.*—Rare.

### *Symptoms.*

*Diagnosis.*—May be confounded with diffused hydrocele of the cord.

*Prognosis.*—Favorable.

*Treatment.*

## ACUTE ORCHITIS.

*Varieties.*—Primary and consecutive.

*Exciting causes.*—Contusion, compression, great excitement of the sexual organs, metastasis from salivary glands, an inflammatory action of the urethra.

*Predisposing causes.*—Scrofula.

*Symptoms.*—Local and Constitutional, and vary with the form.

*Diagnosis.*—May be confounded with strangulated inguinal hernia, imperfect descent of testis, &c.

*Prognosis.*—Generally favorable, varies, however, with the cause.

*Consequences.*

*Terminations.*—Resolution, hardening, suppuration.

*Treatment.*—Leeching, venæsection, cold and warm lotions, purging, compression, &c.

## II. CHRONIC ORCHITIS.

*Anatomical characters.*

*Consequences.*

*Causes.*—Slight contusions, venereal excesses, masturbation, urethral disease, syphilis.

*Symptoms.*—Usually of an indolent character.

*Terminations.*—Resolution, suppuration, ulceration, sinusses and formation of spermatic fistulæ, hernia testis.

*Diagnosis.*—May be confounded with carcinoma of testis. hæmatocele.

*Prognosis.*—Generally favorable.

*Treatment.*—Chiefly constitutional, mercury.

## TUBERCULAR DISEASE OF THE TESTIS.

*Seat.*

*Causes.*

*Age liable.*—Rarely until after puberty.

*Symptoms.*—Insidious in their approach and indolent in their progress.

*Diagnosis.*—May be confounded with chronic orchitis, and malignant disease of the testis.

*Prognosis.*

*Treatment.*—Tonic.

## CARCINOMA OF THE TESTIS.

*Varieties.*—Scirrhus, Encephaloid, Colloid and Melanosis.

### I. SCIRRHUS OF THE TESTIS.

*Frequency of disease.*—Very rare.

*Seat.*—The tubuli seminiferi, the epididymis and sometimes the spermatic cord.

*Symptoms.*—An enlargement of body of the testis with great weight, and severe occasional pain, feeling tuberculated, irregular and excessively hard.

*Diagnosis.*—May be confounded with chronic enlargement and with encephaloid disease.

*Prognosis.*—Unfavorable.

*Treatment.*

### II. ENCEPHALOID CANCER OF THE TESTIS.

*Synonymes.*—Pulpy testis, medullary sarcoma, soft cancer, fungoid disease, fungus hæmatodes.

*Age most liable.*—No age is exempt, but it is more common at the middle period of life.

*Symptoms.*—An enlargement, with induration of the body of the testis, which preserves its oval form and even surface; slight tenderness, dull pain, and occasionally a little effusion into the tun. vaginalis; as the gland enlarges it becomes uneven, irregular and tuberculated, also soft and elastic; pain increases; spermatic cord becomes thick and full, scrotum is swollen and varicose; glands of neighboring regions become enlarged and painful; general health suffers; ulceration ensues, and a morbid mass protrudes in the form of a bleeding fungus, and the disease makes rapid progress.

*Diagnosis.*—May be confounded with hydrocele, hæmatocele, cystic disease, and in its early stage, with chronic orchitis.

*Prognosis*

*Treatment.*

Carcinoma of the Tunica Vaginalis Testis has been observed

*Diagnosis.*—May be confounded with hydrocele.

*Prognosis.*

*Treatment.*

Colloid or Gelatiniform Cancer and Melanosis of the Testis are very rarely met with.

### CYSTIC SARCOMA OF THE TESTIS.

*Synonymes.*—Cystic Disease, Hydatid Disease (Sir A. Cooper.)

*Anatomical seat.*—In the substance of the testis.

*Number.*—From two or three to a countless multitude.

*Size.*—Vary from a millet seed to that of a pigeon's egg.

*Nature of the contents.*

*Mode of origin.*—Difference of opinion. Sir A. Cooper's opinion.

*Age most liable.*—Middle age.

*Causes.*

*Symptoms.*

*Diagnosis.*—May be confounded with hydrocele and encephaloid cancer.

*Prognosis.*—Favorable.

*Treatment.*

#### FIBROUS TRANSFORMATION OF THE TESTIS.

*Anatomical seat.*

*Consequences.*

*Diagnosis.*—May be confounded with malignant disease.

*Prognosis.*

*Treatment.*

#### OSSIFIC DEPOSITS IN THE TESTIS.

*Anatomical seat.*—Between the tunicae, or in the epidymis.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### LOOSE CARTILAGES IN THE TUNICA VAGINALIS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### NERVOUS DISEASES OF THE TESTIS.

*Varieties.*—An exaltation of the natural sensibility of the part, or the irritable testis of most writers, and neuralgia of the spermatic nerves.

##### 1. IRRITABLE TESTIS.

*Symptoms.*—No perceptible alteration in the parts, but a morbid sensibility accompanied by pain, and generally referred to one particular spot.

*Causes.*—Constitutional, chiefly.

*Diagnosis.*

*Prognosis.*

*Treatment.*

## 2. NEURALGIA OF THE TESTIS.

*Causes.*—Disease of the Kidney, the passage of a calculus along the ureter, varicocele, orchitis, but often the cause is hidden.

*Symptoms.*—Sudden, severe, remitting pain, either of a lancinating, or of a dragging or pricking character, and is commonly attended with spasmodic action of the cremaster and sometimes with nausea and vomiting.

*Diagnosis.*

*Prognosis.*

*Treatment.*

## HARDENING OF THE EPIDIDYMIS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## ABSCESS OF THE TESTIS AND EPIDIDYMIS.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## FISTULA.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

## FUNGUS OF THE TESTIS.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

## CASTRATION.

*Definition.*

*History of operation.*

*Diseases rendering it necessary.*—The different forms of carcinoma, tuber-

cular disease, cystic disease, some of the terminations of inflammation, severe neuralgia combined with varicocele.

*Steps of the operation.*

*Dangers.*

*Operation required in Imperfect Descent of Testis.*

## II. DISEASES OF THE SPERMATIC CORD.

### VARICOCELE.

*Definition.*—A morbid dilatation of the spermatic veins.

*Division into varicocele and circocle not employed.*

*Appearances on dissection.*

*Testis most liable.*

*Causes.*—Anatomical structure, and accidental causes.

*Effects.*

*Symptoms.*

*Time required in formation.*

*Diagnosis.*—May be confounded with scrotal hernia, or a congenital hydrocele, &c.

*Prognosis.*

*Treatment.*—Palliative and radical; Sir A. Cooper's operation; Ricord's operation; Sir B. Brodie's by division of the vessels; Celsus by ligature; modifications of operation by ligature; Breschet's by compression or excision; Pancoast's operation.

*Relative value of each.*

### ADIPOSE TUMOURS OF THE SPERMATIC CORD.

*Age most liable.*—Advanced age.

*Symptoms.*—Loose movable tumour, of a soft doughy feel and lobular character.

*Diagnosis.*—May be confounded with omental hernia, or varicocele, or hydrocele.

*Prognosis.*

*Treatment.*

### SPASM OF THE CREMASTER.

*Causes.*—Generally symptomatic.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

### III. DISEASES OF THE SCROTUM.

#### WOUNDS OF THE SCROTUM.

*Nature.*

*Causes.*

*Characteristics of contusions.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### PRURIGO SCROTI.

*Definition.*

*Symptoms.*

*Age most liable.*—Adult.

*Causes.*

*Prognosis.*

*Treatment.*

#### VARICOSE VEINS OF THE SCROTUM.

*Age most liable.*—Old age.

*Treatment.*

#### PNEUMATOCELE.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### CEDEMA SCROTI.

*Synonyme.*—Anasarca hydrocele.

*Causes.*—Mostly symptomatic.

*Symptoms.*

*Diagnosis.*—May be confounded with hydrocele, and elephantiasis of the scrotum.

*Prognosis.*—Depends on cause.

*Treatment.*

#### INFLAMMATION OF THE SCROTUM.

*Forms.*—Mild and severe.



*Symptoms of each.*

*Terminations of each.*—Of the mild, resolution. Of the severe, mortification, and rarely effusion of lymph or pus.

*Diagnosis.*—May be confounded with œdema.

*Treatment.*

#### MORTIFICATION OF THE SCROTUM.

*Causes.*—Severe inflammation, excessive cold, extravasation of urine.

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ABSCESS OF THE SCROTUM.

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### ELEPHANTIASIS OF THE SCROTUM.

*Definition.*

*Anatomical seat.*

*Pathology.*

*Causes.*

*Symptoms.*

*Size of tumour.*

*Complications.*—Scrotal hernia and hydrocele.

*Diagnosis.*—May be confounded with œdema, &c.

*Prognosis.*

*Treatment.*

*Dangers of operation.*

#### HYPERTROPHY OF THE SCROTUM.

*Definition.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

#### CANCER OF THE SCROTUM.

*Synonyme.*—Chimney-sweeper's cancer.

*Symptoms.*



*Causes.*

*Diagnosis.*

*Prognosis.*—Unfavorable.

*Treatment.*

MELANOSIS OF THE SCROTUM—RARELY MET WITH.

TUMOURS OF THE SCROTUM.

*Varieties met with.*—Adipose, fibrous, &c. &c.

*Anatomical seat.*

*Causes.*

*Symptoms.*

*Diagnosis.*

*Prognosis.*

*Treatment.*

RESTORATION OF THE SCROTUM.

*Causes demanding the operation.*

*Mode of performance.*

IMPOTENCE.

*Definition.*

*Difference between impotence and sterility.*

*Sex most liable.*—The male to impotency, the female to sterility.

*Causes of impotency.*—1. Organic. 2. Functional. 3. Moral.

*Symptoms.*—Depend on the cause.

*Diagnosis.*

*Prognosis.*

*Treatment.*

SPERMATORRHŒA.

*Definition.*

*Causes.*

*Symptoms.*—1st and 2d stage.

*Diagnosis.*

*Prognosis.*

*Dissection.*

*Treatment.*

## FOURTH DIVISION.

### AMPUTATION.

*Definition.*

*Importance.*

*History.*

*Classification.*

*Methods.* } 1. Circular.  
                  } 2. Flap, single and double.  
                  } 3. Oval or oblique.

*Time.* } 1. Primary.  
          } 2. Consecutive.

*Place.* } 1. In Continuity of limb.  
          } 2. In Contiguity of limb.

*Circumstance.* } 1. Operations of necessity.  
                  } 2. Operations of choice or complaisance.

*Spot.* } 1. Operation of necessity.  
          } 2. Operations of election.

*Causes demanding the operation.*

*Prognosis.*—Favorable circumstances.

1. Youth.
2. Habit somewhat reduced but not too weak.
3. Cheerful temperament.
4. Good general health.
5. Simple disease or accident.
6. Part at some distance from the trunk.
7. The upper extremity.
8. Circumstances of the patient.

*Statistics of amputation.*

*Preparation of patient.*

*Instruments required.*

*Dressings.*

*Accidents.*

*Accompanying.* } 1. Hemorrhage.  
                  } 2. Excessive pain.  
                  } 3. Fainting.  
                  } 4. Convulsion.

*Secondary.* } 1. Hemorrhage.  
                  } 2. Inflammation of stump.  
                  } 3. Conical stump.  
                  } 4. Abscess and sinus of stump  
                  } 5. Necrosis or caries of bone.  
                  } 6. Cystitis.

7. Phlebitis.
8. Metastatic abscess.
9. Gangrene.
10. Hectic fever.

*Healing of the stump and changes which take place in the different tissues.*  
*Modification of the constitution.*

#### CONSIDERATION OF THE DIFFERENT GENERAL METHODS.

##### 1. Circular Amputation.

*History.*

*Object had in view.*

*Manner of calculating the flap.*

*Manner of dividing the tissues.*

*Reversion of the flap.*

*Instruments employed.*

*Advantages of the operation.*

*Cases to which it is most applicable.*

##### 2. Flap Operation.

*History.*

*Object had in view.*

*Manner of calculating the flap.*

*Manner of dividing the tissues.*

*Instruments employed.*

*Advantages of the operation.*

*Cases to which it is applicable.*

##### 3. Oval Operation.

*History.*

*Object had in view.*

*Manner of calculating the flap.*

*Manner of dividing the tissues.*

*Instruments employed.*

*Advantages of the operation.*

*Cases to which it is considered applicable.*

##### 4. Operation in Continuity of Limb.

*History.*

*Object had in view.*

*Manner of dividing the tissues.*

*Instruments required.*

*Advantages of the operation.*

*Disadvantages.*

*Cases to which it is applicable.*

### 5. Operation in Contiguity of Limb.

*History.*

*Object had in view.*

*Manner of dividing the tissues.*

*Instruments required.*

*Advantages of the operation.*

*Disadvantages.*

*Cases to which it is applicable.*

### SPECIAL AMPUTATIONS.

#### 1. *Of the Upper Extremity.*

These consist of amputations of the Phalanges, metacarpo-phalangeal articulations, metacarpal bones, separately or collectively, metacarpo-carpal joints, radio-carpal articulations, of the fore-arm, elbow-joint, arm, shoulder-joint and shoulder-blade with the arm.

#### 2. *Of the Lower Extremity.*

These consist of amputations of the Phalanges, metatarso-phalangeal articulations, metatarso-tarsal, ankle joint, leg, at the knee joint, thigh, and hip joint.

### RESECTION OF BONES.

*Definition.*

*History.*

*Classification—*

1. Those practised in the continuity of a bone.
2. Those practised in the contiguity.
3. Those in which the bone is extracted entire.

*Cases calling for resection.*—Caries, necrosis, osteo sarcoma, spina ventosa, compound and comminuted fractures, gunshot injuries, and compound luxations.

*Counter indications.*

*Prognosis.*

*Time of performance.*

*Instruments and apparatus.*

*Special application.*



